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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,154	02/11/2004	Christian Gater	MIC-M099	3099
32566 7590 05/02/2007 PATENT LAW GROUP LLP 2635 NORTH FIRST STREET SUITE 223 SAN JOSE, CA 95134			EXAMINER TAYONG, HELENE E	
			ART UNIT 2609	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/776,154	<b>Applicant(s)</b> GATER, CHRISTIAN	
	<b>Examiner</b> Helene Tayong	<b>Art Unit</b> 2609	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5-10,13-41 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 4,11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/11/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This application is in condition for allowance except for the following formal matters:

#### ***Specification***

2. The disclosure is objected to because of the following informalities: On page 26, [0061], lines 4, a current **IDO** is disclosed. In figure 3B the current source is **IDC**.

Appropriate correction is required.

#### ***Claim Objections***

3. Claims 4, 11 and 12 are objected to because of the following informalities:
  - (1) In claim 4 line 3 and 4, remove the word **the** in front of "generating a data output".
  - (2) In claims 11 and 12 line 4, insert the word **at** in front of "a given delay"

Appropriate correction is required.

#### ***Allowable Subject Matter***

5. Claims 1-3, 5-10 and 13-41 are allowed.
6. Claims 4, 11 and 12 are objected to due to minor informalities, but would be allowed upon compliance with the requirement.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with.

See 37 CFR 1.111(b) and MPEP § 707.07(a).

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7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Tateishi (US 6057675) teaches a latch circuit and a comparator. However Tateishi does not teach encoding data to be transmitted as data pulses, the data pulses having a first pulse separation to represent a first logical data value and a second pulse separation to represent a second logical data value; transmitting the data pulses on a single communication wire; receiving the data pulses at a data terminal; generating a voltage ramp signal having a voltage magnitude between a first voltage and a second voltage; resetting the voltage ramp signal to the first voltage a first delay after the leading edge of each data pulse; regenerating the voltage ramp signal towards the second voltage a first time period after the resetting of the voltage ramp signal; detecting the voltage value of the voltage ramp signal at the leading edge of each data pulse; generating a data output signal associated with each data pulse having a first logical state when the voltage value of the voltage ramp signal is less than a threshold value; generating a data output signal associated with each data pulse having a second logical state when the voltage value of the voltage ramp signal is greater than the threshold value; and storing the data output signal associated with each data pulse in a shift register, a delay circuit and an N-bit shift register.

### ***Conclusion***

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

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A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hatakeyama (5420869) discloses a semiconductor integrated circuit device.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Tayong whose telephone number is 571-270-1675. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lui Shuwang can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

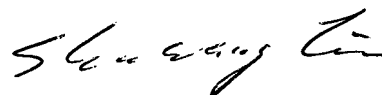
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Helene Tayong

4/30/07

A handwritten signature in cursive script, appearing to read "Shuwang Liu".

**SHUWANG LIU**  
**SUPERVISORY PATENT EXAMINER**